

ER Site No. 91: Lead Firing Site (Thunder Range)

ADS: 1335

Operable Unit: Southwest Test Area

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Site History

The Lead Firing Site is located in the northern part of Thunder Range, at the southwest end of the large shock tube. It is no longer an active site, but SNL would like to retain the option to use this area in the future. The site is approximately 750-ft long by 510-ft wide (382,500 sq ft). The firing site itself is defined by a barbed-wire enclosure approximately 225-ft long by 185-ft wide, but other associated, potentially contaminated areas are not enclosed within the fenced area.

Testing activity at the site involved more than 20 high explosive (HE) shots, each using 3000 to 4000 lb of lead. Although large scraps of lead were removed after testing, significant amounts of lead may still remain. The Comprehensive Environmental Assessment and Response Program (CEARP) description says that "the area may be contaminated with high explosives, including barium and that explosives are generally picked up." Radioactive material has not been used in tests at this site.

The terrain around ER Site 91 is relatively flat. Geology is characteristic of the area. Depth to groundwater is not known but is estimated to be approximately 500 ft below ground surface. Vegetation is comprised primarily of sage and tumbleweeds.

Constituents of Concern

Lead

Current Hazards

Lead debris exists throughout the site which could cause a hazard to workers involved in any surface or subsurface disturbance activity.

Current Status of Work

This site is included in the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan that was submitted in 1996. Preliminary scoping and RFI sampling were completed in 1996, along with two Voluntary Corrective Measures (VCMs). The first VCM addressed surface radioactive contamination and the second VCM addressed Lead contamination (soil and Lead fragments). Since 1996 more characterization sampling and field testing has been conducted. The results of this work indicate additional soil and debris clean up will be required before a final no further action (NFA) proposal can be prepared. (Status Current as of 11/12/02)

Future Work Planned

A final Voluntary Corrective Action (VCA) involving soil remediation and debris removal is planned. A risk-based NFA proposal will be submitted to the New Mexico Environment Department (NMED) following the VCA. After SWMU 91 is deemed appropriate for NFA by the NMED it will undergo the permit modification and public review process prior to final approval by the NMED.

Waste Volume Estimated/Generated

The surface radiation VCM removed 2 drums of radioactive waste. The other VCM generated hazardous lead-contaminated soil totaling 276 cubic yards that were shipped off-site for disposal. Current waste volume estimates for the final VCA include: 1,500 cubic yards of non-hazardous (stabilized), special waste (treated, decharacterized Lead-contaminated soil), several tons of pure Lead fragments (for recycling/re-use), and 400 cubic yards of test debris (scrap metal, wire, plastic, wood, etc.).

Information for ER Site 91 was last updated Jan 22, 2003.